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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/856,502	09/25/2001	Tetsuharu Tanaka	107348-00119	5501

4372 7590 06/24/2004

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EXAMINER

BOYD, JENNIFER A

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 06/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/856,502

Applicant(s)

TANAKA ET AL.

Examiner

Jennifer A Boyd

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 6, 11 and 13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 6, 11 and 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The Applicant's Amendments and Accompanying Remarks, filed April 12, 2004, have been entered and have been carefully considered. Claim 12 is cancelled and claims 1, 6, 11 and 13 are pending. The invention as currently claimed is not found to be patentable for reasons herein below.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

3. Claims 1, 6 and 11 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Fujita et al.(US 4,781,976). The rejection is amended below to correct a mistake in wording of the rejection found in paragraph 5 of the previous Office Action mailed September 25, 2003. The corrections appear in bold below. The rejection is maintained.

Fujita et al. is directed to a skin covering for trims of automobiles.

As to claim 1, Fujita teaches that the skin covering comprises a surface layer, a foam layer and a back layer (Abstract). The Examiner equates the surface layer to Applicant's "skin body". The skin covering is applied to a cloth (column 3, lines 65 – 68 and column 4, lines 1 – 5). Fujita teaches that the surface layer, or "skin body", comprises high polymerization PVC, equated to Applicant's "synthetic resin" and other additives such as titanium oxide as a filler,

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equated to Applicant's "infrared-ray reflective pigment" (column 2, lines 25 – 55). According to *Knovel Critical Tables*, titanium oxide is an excellent reflector of infrared light.

As to claim 6, Fujita teaches that the skin covering comprising a surface layer, a foam layer and a back layer (Abstract). The Examiner equates the surface layer to Applicant's "upper layer body" and "upper layer" and the back layer to Applicant's "lower layer" and "lower layer body". Fujita teaches that the surface layer, or "upper layer body/upper layer", comprises high polymerization PVC, equated to Applicant's "synthetic resin" and other additives such as titanium oxide as a filler, equated to Applicant's "infrared-ray reflective pigment". According to *Knovel Critical Tables*, titanium oxide is an excellent reflector of infrared light. Fujita teaches that the back layer, or "lower layer/lower layer body", comprises low polymerization polyvinyl chloride (PVC) and can additionally contain fillers (column 3, lines 20 – 35). Although, Fujita does not specifically teach certain fillers in the paragraph discussing the back layer, Fujita does teach that common fillers include carbon black (column 2, lines 50 – 53). The skin covering is applied to a cloth (column 3, lines 65 – 68 and column 4, lines 1 – 5). According to *Complete Textile Glossary*, a cloth is a generic term embracing all textile fabrics and felts and includes any pliant fabric including knits.

As to claim 1, Fujita discloses the claimed invention except for that the titanium oxide filler is present in the amount of 0.3 parts to 10 parts per 100 parts of synthetic resin. It should be noted that the amount of filler present in the synthetic resin is a result effective variable. For example, as the amount of filler increases, the synthetic resin becomes stronger and has a higher infrared reflectance, thus resistivity, to exposure to the sun. It would have been obvious to one having ordinary skill in the art at the time the invention was made to create a skin where the

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titanium oxide filler is present in the amount of 0.3 parts to 10 parts per 100 parts of synthetic resin since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). In the present invention, one would have been motivated to optimize the amount of filler present in the synthetic resin to maximize the infrared reflective capabilities. Additionally, it should be noted that according to *Plastic Additives: An A-Z Reference*, titanium dioxide, a type of titanium oxide, is the most important white pigment used in PVC and the typical amount required can be between 1 and 10 parts of titanium dioxide per 100 parts of PVC.

As to claims 1, 11 and 12, it should be noted that knit fabrics do not have smooth surfaces due to the entanglements of the structure. Therefore, when a coating is applied to the surface of the fabric, the coating will contour the irregularities of the knitted fabric creating the Applicant's recesses and projections. Although **Fujita** does not explicitly teach the claimed height of the projections is 0.05 mm or more as required by claim 1 and is 0.35 mm or less as required by claim 11, it is reasonable to presume that claimed height of the projections is 0.05 mm or more as required by claim 1, 0.35 mm or less as required by claim 11 and temperature resistance when exposed to a heat source does not exceed 77% of the temperature of the heat source as required by claim 12 is inherent to **Fujita**. Support for said presumption is found in the use of like materials (i.e. a resin coated knitted fabric) which would result in the claimed property. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the presently claimed property of height of the projections is 0.05 mm or more as required by claim 1 and 0.35 mm or less as required by claim 11 would obviously have been present once the **Fujita** product is provided. Note *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977).

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4. Claim 13 remains rejected under 35 U.S.C. 103(a) as being unpatentable over Fujita (US 4,781,976) in view of Hutchinson et al. (GB 2,331,525). The details of the rejection can be found in paragraph 6 of the previous Office Action mailed September 25, 2003. The rejection is maintained.

Response to Arguments

5. Applicant's arguments filed April 12, 2004 have been fully considered but they are not persuasive.

6. In response to Applicant's argument that the amount of filler used in the synthetic resin is an unexpected result, the Examiner submits the following suggestion to the Applicant. If the Applicant believes that one of ordinary skill in the art would not arrive at using the filler in the amount of 0.3 to 10 parts per 100 parts of synthetic resin through routine experimentation, it is suggested that the Applicant submit a Declaration supporting Applicant's claim that the amount of filler used is an unexpected result.

7. In response to Applicant's Argument that Fujita does not teach or suggest projections or height of the projections, the Examiner respectfully argues the contrary. Although, Fujita does not explicitly disclose projections or height of projections, it is known that all fabrics have an uneven surface, especially knitted materials. Since the Applicant claims projections of a relatively small height, then it is assumed such small unevenness in the surface would inherently result in Applicant's projections. It is suggested that the Applicant should further define the nature of the projections such as how they are formed (i.e. sanding). It should be noted that the

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rejection involving the surface of Nelson was an inadvertent error. It should be noted that remaining part of the rejection in paragraph 5 was drawn to being unpatentable over Fujita, which would suggest this was an error. The rejection has been maintained and the inadvertent error has been corrected above.

8. In response to Applicant's Argument that Hutchinson fails to make up for the deficiencies of Fujita, the Examiner respectfully argues the contrary. Please note the response to Arguments above. The Applicant has failed to point out any deficiencies concerning the rejection found in paragraph 6 of the previous Office Action dated September 25, 2001. The Examiner still deems the rejection to be appropriate and thus is maintained.

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Conclusion

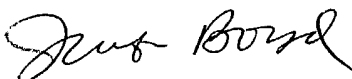
9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A Boyd whose telephone number is 571-272-1473. The examiner can normally be reached on Monday thru Friday (8:30am - 6:00pm).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jennifer Boyd

June 17, 2004



Ula C. Ruddock
Primary Examiner
Tech Center 1700